
Data call characteristics

The types of data calls possible with the Meridian data features fall into these categories:

- Calls to a data communications terminal
- Calls to a computer port
- Calls to an outgoing trunk (via outbound modem pool)
- Calls from an incoming trunk (to an inbound modem pool)
- Calls to a Multi-Channel Data System (MCDS) channel

Calls to a data communications terminal

This type of data call is similar to an intra-office voice call because it is a call to a specific line termination within your Meridian 1 system. Two timeslots are used to establish these calls, and the grade of service (GOS) is the same as that of the overall system. Calls through the MCDS are the same as through an Add-on Data Module (ADM).

Calls to a computer port

This type of data call is similar to an outgoing voice call to a hunt group because it can be connected to any one of several common line terminations. This call may use an ADM or one port of an MCDS.

Note: If only one computer port is provided, then this call-type is like a call to a data communications terminal.

Two timeslots are used for calls to a computer port, and the GOS with respect to timeslot blocking is the same as the overall system grade of service. Blockage may still occur, assuming an adequate GOS, if the number of computer ports is insufficient.

If timeslot blockage occurs when a data call is placed to the computer port, the system does not attempt a second call to locate timeslots for another port on a different network loop.

Calls to an outgoing trunk

A data call can be made through your Meridian 1 system to a remote computer over an outgoing analog trunk. Outgoing trunks are accessed for data calls from within your system via a modem pool arrangement; this data-calling capability is unique to the Meridian data features and involves five separate terminations:

- The originating station (ADM and the Asynchronous Interface Module (AIM) data side)
- The originating station (voice side)
- The modem pool (inbound side with ADM)
- The modem pool (outbound side with modem)
- The outgoing trunk (to remote computer)

Setup for a data call made via an outgoing trunk momentarily (just during transfer stage) requires three separate Meridian 1 paths (6 timeslots) to establish the connection. The sequence is as follows:

Connection 1: a to c user initiated

Connection 2: b to e user initiated

Connection 3: d to e

Note: Connections 1 and 2 can be performed in reverse order, but the above sequence is recommended.

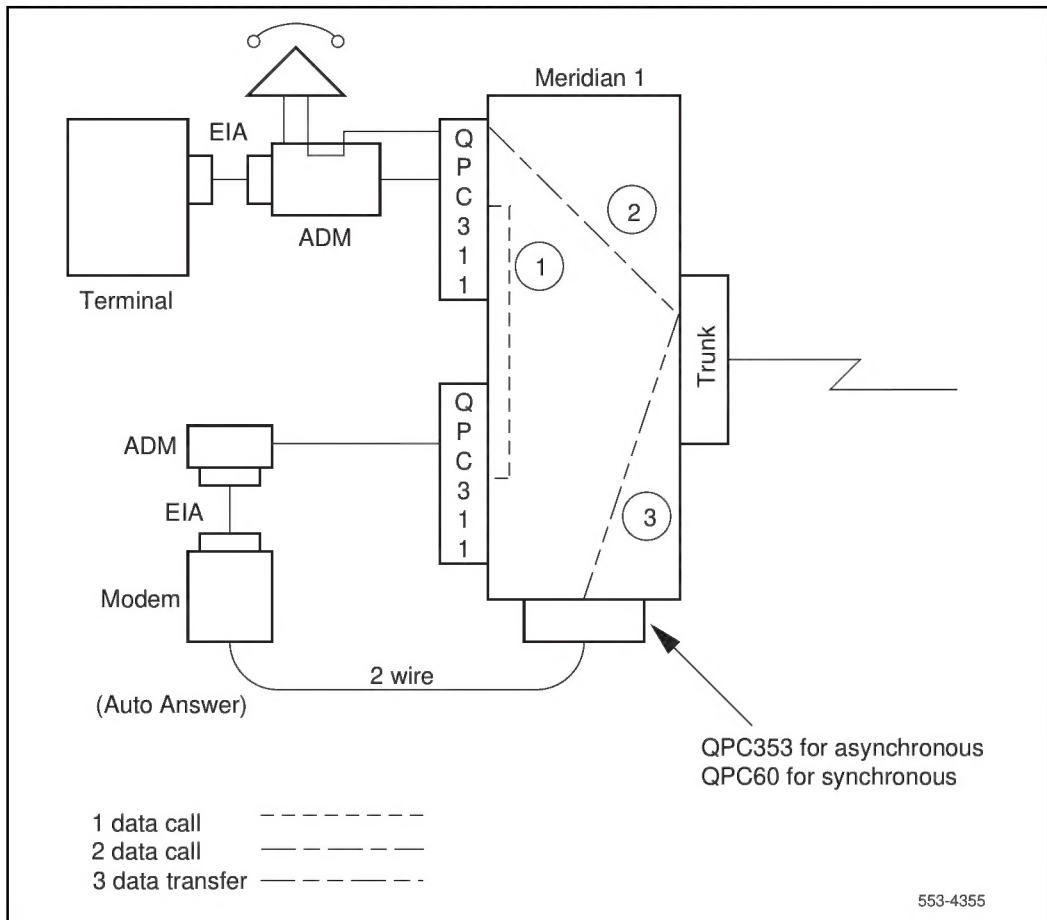
Only Connection 1 and 2 are user initiated. When Connection 2 is established, user-control intervention allows the system to Call Transfer this connection to become Connection 3.

Note: With Automatic Modem Pooling (AMP) the three-step process of accessing the modems is replaced with a one-step procedure. The insertion of the ADM/Modem by the Meridian 1 switch is totally transparent to the user.

After call setup is complete, two paths (four timeslots) are in use during this data call to a remote computer: Connection 1 and Connection 3. Thus, once established, this type of call constitutes one intra-office data call, plus one outgoing-originating voice (outgoing trunk) call in terms of traffic generated.

Figure 1 illustrates the call-setup sequence for data calls made to a remote computer via modem pool. For a detailed operating description of this type of call setup, refer to *Meridian data features operation and tests* (553-2731-300).

Figure 1
Call setup to outgoing trunk (via modem pool without AMP)



Calls from an incoming trunk

A data call can be made through your Meridian 1 system to a computer port or terminal over an incoming analog trunk only. The computer port or terminal is accessed from within your system via a modem pool arrangement; this data-calling capability is unique to the Meridian data features. This capability involves four separate terminations:

- The incoming trunk (from remote user)
- The modem pool (inbound side with modem)
- The modem pool (outbound side with ADM)
- The terminating station (ADM-data side)

Setup for a data call made from an incoming trunk requires two separate Meridian 1 paths (four timeslots) to establish the connection. The sequence is as follows:

Connection 1: a to b user initiated

Connection 2: c to d Meridian 1 initiated for Hot Line; user initiated with keyboard dialing

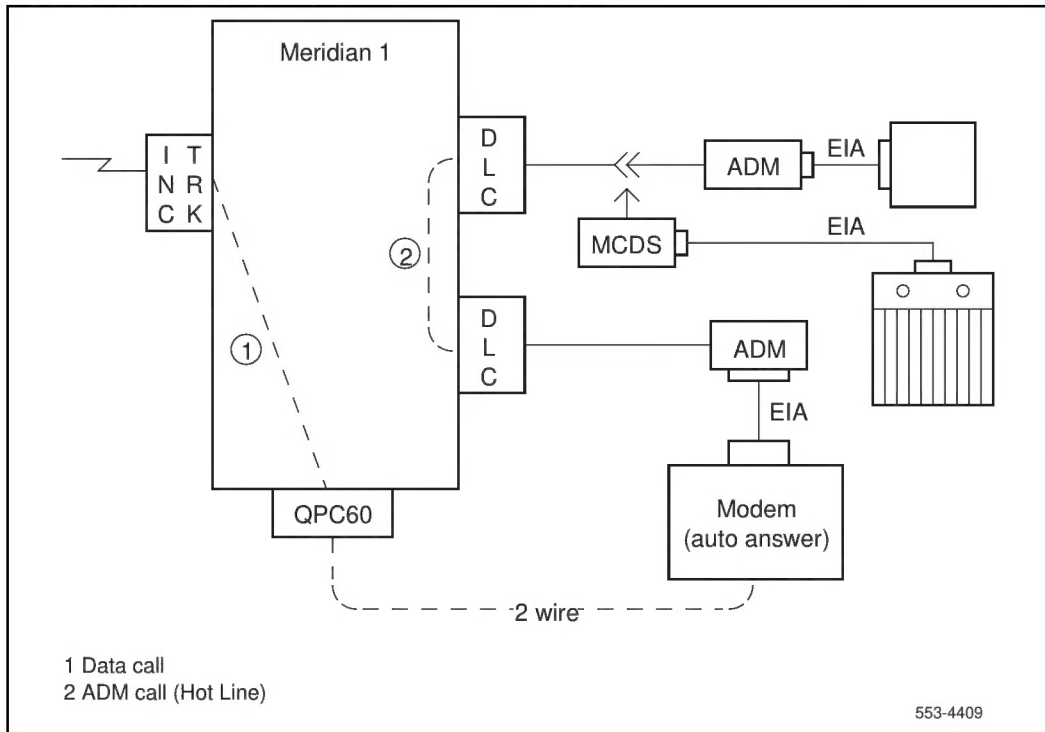
One or both of these call-setup connections are user initiated. When Connection 2 is established, user-control intervention then allows data to be transmitted.

Note: With AMP, the incoming call can terminate on a customer data port or a data set. The data set has a special class of service while the data port is a member of an ADM trunk route. If the incoming call is analog (not digital) and the data port is not analog, then an ADM/Modem pair is switched into the connection for data transmission. The data ports are organized into trunk routes. When the proper number is dialed for a data port or a data set, the system selects the proper modem from the pool and inserts it into the connection.

After call setup is complete, two paths (four timeslots) are in use during this data call from a remote user. Once established, this type of call constitutes one intra-office data call plus one incoming-originating voice (incoming trunk) call in terms of traffic generated.

Figure 2 illustrates the call-setup sequence for data calls made from a remote user to a computer port or terminal via the modem pool on your Meridian 1 system.

Figure 2
Call setup from incoming trunk (via modem pool)



Calls to an MCDS

This type of data call illustrated in **Figure 3** is similar to an intra-office voice call because it is to a specific line termination within your system. Two timeslots are used to establish these calls, and the GOS is the same as that of the overall system.

Figure 3
Call setup to MCDS port

